

## **REMARKS**

### **I. Status of the Claims**

Upon entry of this Amendment, claims 1-4 and 8-13 are pending, Claims 5-6 were previously canceled without prejudice or disclaimer of the subject matter therein. Claim 7 is canceled herein, without prejudice or disclaimer of the subject matter therein.

Claim 1 has been amended to specify that “the resin composition further contains a carbodiimide compound having a basic structure represented by a general formula (1):



wherein R represents an organic bonding unit, and n is an integer of 1 or more.” Support for this amendment can be found in the original specification at paragraph [0015], pp. 10-11.

Claim 9 has been amended to specify that the blending amount of the carbodiimide compound recited in claim 1 is 0.1 to 3.0 mass parts per 100 mass parts of the aliphatic polyester resin. Support for this amendment can be found in the original specification at paragraph [0017], pp. 11-12.

New claim 13 calls for the reflective film according to claim 12, wherein the irradiation of ultraviolet rays is performed for 1,000 hours in a UV fade-o-meter tester. Support for this amendment can be found in the original specification at paragraph [0059], p. 35.

Thus, no new matter is added by these amendments.

Reconsideration of the pending claims in view of the following remarks is respectfully requested. No new matter is added by way of the present amendments.

### **II. Double Patenting rejection**

Claims 1-4 and 7-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-14 of co-pending application no. 10/557,205 (“the

'205 application") and claims 1-12 of co-pending application no. 12/007,748 ("the '748 application"), in view of JP 10-193494 ("JP '494"). Applicants confirm that neither of the '205 or '748 applications have issued as a patent. Accordingly, Applicants are not required to respond to the instant rejection at this time.

Applicant notes that the present application has already been disclaimed in the '205 application. The Terminal Disclaimer filed in the '205 application is attached hereto as Exhibit A.

Further, in the interest of furthering prosecution in the instant case, submitted herewith is a Terminal Disclaimer over U.S. Patent Application No. 12/007,748.

Based on the Terminal Disclaimers now of record, Applicant respectfully requests that the present rejection be withdrawn.

### **III. Rejections under 35. U.S.C. § 103**

Claims 1-4 and 7-11 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over JP 10-193494 ("JP '494") in view of US 6,815,079 ("Rosenbaum") and US 6,846,606 ("Laney").

The Examiner states that JP '494 discloses a reflective multilayer film comprising a base layer, a metal layer, and a surface layer. The Examiner states that JP '494 teaches a base layer that is a voided white film comprising a polymer and a white pigment, wherein the film has a light transmittance of less than 50%, and a reflectivity of greater than 90%. According to the Examiner, the metal layer comprises silver or a silver alloy, with a typical thickness of 10-200 nm. The Examiner acknowledges that JP '494 does not teach the use of aliphatic polyesters.

The Examiner also states that Rosenbaum discloses that it is well-known in the art to form reflective voided white films from a composition comprising polylactide resins and a white pigment, which is suitable for metallization, in order to form economical, environmentally friendly white films with improved orientation characteristics. The Examiner also contents that functional coatings, e.g., adhesion-promoting coatings, etc., can be applied to the film, and that it is well know in the art to incorporate other known additives into said white films..

According to the Examiner, Laney discloses that it is well known in the art to form white, highly reflective films comprising polylactide resin and barium sulfate and having a typical void content of less than 60 volume % and typical filler content of 23-65 weight % to obtain films having a reflectance of greater than 94% for wavelengths between 300-700 nm, wherein the films are capable of achieving reflective values of 98% or more. According to the Examiner, the films have a longitudinal stretch ratio of 3.3 and a transverse stretch ratio of 3.3.

The Examiner contends that it would have been obvious to one of ordinary skill in the art at the relevant time (i.e., the time of filing of the instant patent application) to use the films of Rosenbaum and Laney as the base layer of the reflective film taught in JP '494.

The Applicant respectfully traverses this rejection, on the basis that the combined teachings of the cited prior art do not teach or suggest the claims as amended herein.

More specifically, claim 1 has been amended to specify that "the resin composition further contains a carbodiimide compound having a basic structure represented by a general formula (1):



wherein R represents an organic bonding unit, and n is an integer of 1 or more." Claim 9 has been amended to specify that the blending amount of the carbodiimide compound recited in claim 1 is 0.1 to 3.0 mass parts per 100 mass parts of the aliphatic polyester resin. The carbodiimide compounds having a basic structure represented by the general formula (1) are not taught or suggested by JP '494, Rosenbaum or Laney, or any combination thereof. In fact, JP '494 and Laney contain no disclosure whatsoever concerning stabilizers (hydrolysis preventing agents), much less carbodiimide compounds acting as stabilizers (hydrolysis preventing agents).

And, Rosenbaum cannot cure the deficiencies of JP '494 and Laney. Rosenbaum merely mentions "stabilizers" but the Applicant finds no description whatsoever about the carbodiimide compound having a basic structure represented by the general formula (1). The Applicant notes that when the biodegradable resins such as polylactic acid resins are used to form a film, carbodiimide compounds are not usually added as additives, because such carbodiimide compounds damage the

biodegradability which is an important property of biodegradable resins. In the present invention the specific carbodiimide compound is used because it is resistant to high temperatures and high humidity (see paragraph [0014] of the original specification), and thus subject to hydrolysis. When the specific carbodiimide compounds having a basic structure represented by the general formula (1) are further added to the resin composition, the obtained reflective sheet, even if stored for a long time in a high temperature/high humidity atmosphere, does not undergo hydrolysis with water vapor in the air and moisture from outside, and does not cause a decrease in mechanical properties. Not only does Rosenbaum not teach or suggest the carbodiimide compound having a basic structure represented by the general formula (1), it does not teach or suggest the problem of hydrolysis at high temperature or high humidity or its solution. Thus, claim 1 as amended is not obvious over the combined teachings of JP '494, Rosenbaum and Laney.

Claims 2-4 and 8-13 depend from claim 1, either directly or indirectly. Claims 2-4 and 8-13 thus include all the limitations of claim 1 (and further limits claim 1). Thus, because claim 1 as amended is not obvious over the combined teachings of JP '494, Rosenbaum and Laney, claims 2-4 and 8-13 depend obvious, either.

Based on the foregoing remarks, Applicant submits that the rejection to claim 1 as obvious over the combined teachings of JP '494, Rosenbaum and Laney has been addressed and overcome. Accordingly, the rejection as applied to the dependent claims 2-4 and 8-13 are also overcome. Accordingly, withdrawal of the present rejection is respectfully requested.

**Conclusion**

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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# EXHIBIT A